

WHAT IS CLAIMED IS:

1. A surface treating article, comprising:

- a) a surface conditioning member;
- b) a fastener including a generally planar surface and a drive member; and
- c) a layer of adhesive between said surface conditioning member and said planar surface of said fastener, wherein said layer of adhesive includes rotational orientation.

2. The surface treating article of claim 1, wherein said surface conditioning member includes a working surface and a back surface opposite said working surface, and wherein said layer of adhesive is between said back surface of said surface conditioning member and said planar surface of said fastener.

3. The surface treating article of claim 2, wherein said layer of adhesive is coated on substantially all of said back surface of said surface conditioning member.

4. The surface treating article of claim 1, wherein said surface conditioning member is an abrasive member.

5. The surface treating article of claim 4, wherein said working surface comprises a non-woven abrasive.

6. The surface treating article of claim 4, wherein said working surface comprises a coated abrasive.

7. The surface treating article of claim 1, wherein said fastener comprises a thermoplastic material.

8. The surface treating article of claim 7, wherein said fastener comprises nylon.

9. The surface treating article of claim 1, wherein said fastener comprises metal.

10. The surface treating article of claim 9, wherein said fastener comprises steel.

11. The surface treating article of claim 1, wherein said layer of adhesive comprises a thermoplastic adhesive.

12. The surface treating article of claim 11, wherein said layer of thermoplastic adhesive was heated by inducing relative rotation between said fastener and said surface conditioning member with said layer of thermoplastic adhesive between said planar surface of said fastener and said surface conditioning member.

13. The surface treating article of claim 11, wherein said layer of adhesive comprises a thermosettable thermoplastic adhesive.

14. The surface treating article of claim 1, wherein said fastener includes a generally planar base and a drive member, wherein said planar base includes said planar surface and a second surface opposite said planar surface, and wherein said drive member extends from said second surface of said planar base.

15. The surface treating article of claim 11, wherein said planar base allows said adhesive to flow freely between said back surface of said surface conditioning member and said planar base, wherein said adhesive is in a softened state.

16. A surface treating article, comprising:

a) a surface conditioning member;

b) a fastener including a generally planar surface and a drive member, wherein said planar surface includes a center portion and an outer portion adjacent said center portion; and

c) a layer of adhesive between said surface conditioning member and said planar surface of said fastener, wherein said layer of adhesive is bonded more firmly to said surface conditioning member adjacent said outer portion of said planar surface

of said fastener than said layer of adhesive adjacent said center portion of said planar surface of said fastener.

17. The surface treating article of claim 16, wherein said surface conditioning member includes a working surface and a back surface opposite said working surface, and wherein said layer of adhesive is between said back surface of said surface conditioning member and said planar surface of said fastener.

18. The surface treating article of claim 17, wherein said layer of adhesive is coated on substantially all of said back surface of said surface conditioning member.

19. The surface treating article of claim 16, wherein said surface conditioning member is an abrasive member.

20. The surface treating article of claim 19, wherein said working surface comprises a non-woven abrasive.

21. The surface treating article of claim 19, wherein said working surface comprises a coated abrasive.

22. The surface treating article of claim 16, wherein said fastener comprises a thermoplastic material.

23. The surface treating article of claim 22, wherein said fastener comprises nylon.

24. The surface treating article of claim 16, wherein said fastener comprises metal.

25. The surface treating article of claim 24, wherein said fastener comprises steel.

26. The surface treating article of claim 16, wherein said layer of adhesive comprises a thermoplastic adhesive.

27. The surface treating article of claim 26, wherein said layer of thermoplastic adhesive was heated by inducing relative rotation between said fastener and said surface treating article with said layer of thermoplastic adhesive between said planar surface of said fastener and said surface treating article.

28. The surface treating article of claim 26, wherein said layer of adhesive comprises a thermosettable thermoplastic adhesive.

29. The surface treating article of claim 16, wherein said fastener includes a generally planar base and a drive member, wherein said planar base includes said planar surface and a second surface opposite said planar surface, and wherein said drive member extends from said second surface of said planar base.

30. The surface treating article of claim 26, wherein said planar base allows said adhesive to flow freely between said back surface of said surface treating article and said planar base, wherein said adhesive is in a softened state.

31. A method for attaching a fastener to a surface conditioning member, comprising the steps of:

- a) inducing relative rotation between a fastener and a surface conditioning member with a layer of thermoplastic adhesive in contact with a planar surface of the fastener and the surface conditioning member so as to soften the layer of adhesive to form a bond between the fastener and the surface conditioning member; and
- b) thereafter stopping the relative rotation between the fastener and the surface treating member.

32. The method of claim 31, wherein the layer of adhesive comprises a sheet of adhesive.

33. The method of claim 32, wherein the sheet of adhesive comprises a disc of adhesive.

34. The method of claim 31, wherein the layer of adhesive comprises an annulus of adhesive.

35. The method of claim 31, wherein the surface conditioning member includes a working surface and a back surface opposite said working surface, and wherein step a) includes inducing relative rotation between the fastener and the surface conditioning member with the layer of adhesive in contact with the planar surface of the fastener and the back surface of the surface conditioning member.

36. The method of claim 35, wherein the surface conditioning member comprises an abrasive member.

37. The method of claim 36, wherein the working surface comprises a coated abrasive.

38. The method of claim 36, wherein the working surface comprises a non-woven surface.

39. The method of claim 31, wherein the fastener comprises a thermoplastic material.

40. The method of claim 39, wherein the fastener comprises nylon.

41. The method of claim 31, wherein the fastener comprises metal.

42. The method of claim 41, wherein the fastener comprises steel.

43. The method of claim 31, wherein the layer of adhesive comprises a thermoplastic adhesive.

44. The method of claim 43, wherein the layer of thermoplastic adhesive comprises a thermosettable thermoplastic adhesive.

45. The method of claim 31, wherein the fastener includes a generally planar base and a drive member, wherein the planar base includes the planar surface and a second surface opposite the planar surface, and wherein the drive member extends from the second surface of the planar base.

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46. The method of claim 31, wherein step a) comprises inducing a relative rotation of from 2,000 to 10,000 RPM.

5 47. The method of claim 31, wherein step a) comprises applying a compressive force of between 5 and 90 pounds between the fastener and the surface conditioning member.

48. The method of claim 47, wherein step a) causes the planar surface of the fastener to soften and bond with the surface conditioning member.

49. The method of claim 35, further comprising the step of coating the layer of adhesive on the back surface of the surface conditioning article prior to step a).

50. The method of claim 49 further comprising the step of coating substantially all of the back surface of the surface conditioning article with the layer of adhesive prior to step a).

51. The method of claim 31, further comprising the step of coating the layer of adhesive on the planar surface of the fastener prior to step a).

20 52. A surface treating article, prepared according to the method of claim 31.

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